REMARKS

Claims 32, 37, 40, and 116 are amended to address the substance of the Final Office Action discussed below. Claim 116 is also amended to correct a typographical error by changing ~~transfterase~~-isomerase to ribosyltransferase-isomerase in accordance with Claim 40. No new matter has been introduced herewith by this amendment.

Compliance with 35 U.S.C. §112, second paragraph

The previous rejection of Claim 116 was maintained under 35 U.S.C. §112, second paragraph as vague and indefinite and/or confusing in the recitation "protein...selected from the group consisting of ...". In paragraph 28(f) of the Office Action mailed 10/01/04, the Examiner questioned how 2 or 3 amino acid-long amino acid sequences can represent a "reductase" enzyme, or have reductase enzyme activity. For instance, SEQ ID NO: 7 is 12 amino acids long, SEQ ID NO: 16 is 3 amino acids long, SEQ ID NO: 20 is 9 amino acids long, SEQ ID NO: 19 is 11 amino acids long, SEQ ID NO: 23 which is 2 amino acids long, and SEQ ID NOS: 26 and 25 which are only 5 amino acids-long and 7 amino acids-long, respectively. Claim 37 is amended to state that the immunogenic component can be a "protein or peptide" and Claim 116 is amended to include a "peptide". In addition, Claim 116 is amended in the manner that Claim 40 was previously amended by deleting reference to "a second heat shock protein". Applicants believe that Claim 116 is in compliance with 35 U.S.C. §112, second paragraph.

Claims 32, 33, 37 and 40 were rejected under 35 U.S.C. §112, second paragraph, as being non-enabled with regard to the method of treating an animal infected by *L. intracellularis*. Claim 32 is amended to delete the words "or treating an animal infected by *L. intracellularis*" Accordingly, restriction of the scope of this claim by deleting the reference to a method of treating an animal infected by *L. intracellularis* is believed by the applicants to resolve the issue so that Claims 32, 33, 37 and 40 are in compliance with 35 U.S.C. §112, second paragraph.

Claims 32, 33, 37 and 40 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The examiner asserted in paragraph 23(a) that Claim 32 was vague and indefinite in reciting a method for treating an animal comprising the composition of Claim 1 "in an amount effective to induce an immune response to *L. intracellularis*". Since Claim 32 is now amended to no longer encompass the method of treating an animal, the issue of

ambiguity regarding an amount of the composition that is effective to "induce" an immune response or to "treat" an animal infected by *L. intracellularis* is rendered moot. Since the Examiner acknowledges in paragraph 23(c) that the rejections of Claims 33 and 37 as being indefinite arises from the dependencies of these claims from Claim 32, applicants believe that no further amendment is required to address this rejection. The Examiner noted in paragraph 23(b) the lack of antecedent basis with respect to the Claim 40 limitation "at least one immunogenic component". Claim 37 is amended to replace "comprises more than one immunogenic component" with the phrase "further comprises at least one immunogenic component" and Claim 40 is amended to replace "at least one immunogenic component" with "said at least one immunogenic component" as suggested by the Examiner.

Conclusion

In view of Applicants' amendments to the Claims and the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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By: Daniel Altman

Daniel E. Altman
Registration No. 34,115
Attorney of Record
Customer No. 20,995
(949) 760-0404

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